CHAPTER 7

SCOPE FOR THE FUTURE WORK

- Effect of alloying elements on the theoretical nitrogen solubility of SASS can be studied using Thermo-Calc simulations and the same can be validated experimentally.

- Mechanical properties of high nitrogen SASS in the solution-annealed condition can be studied at low and high temperatures.

- Electrochemical Impedance spectroscopy (EIS) analysis can be carried out to study the surface behavior of the SASS under the different environmental conditions.

- Using DOE, the effect of welding parameters on the susceptibility to hot cracking during welding of SASS by GTAW process can be investigated.

- Detailed SEM and TEM characterization can be carried out on the SASS welded samples to understand the formation of microstructures in the weld and HAZ regions various for welding parameters.